summary

The following documents are included in the Appendix:

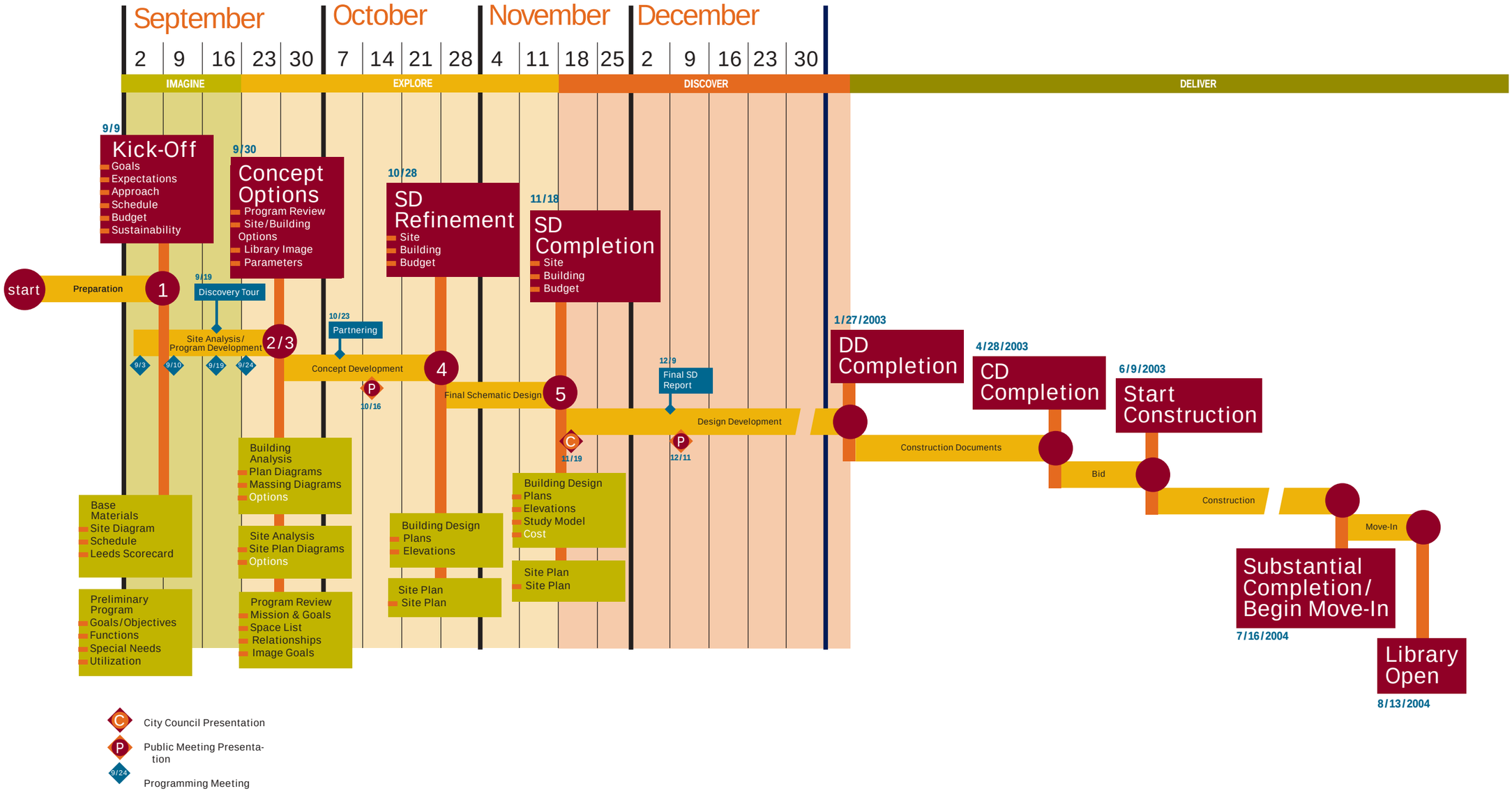
Project Schedule
Indicates the phases of the entire design and construction process to move-in.

Code Analysis
A preliminary code analysis was performed for the New Tigard Library project to identify fire/life safety and uniform building code issues. As the project continues and further dialogue with the City of Tigard takes place, the analysis will be refined and the building design finalized.

LEED Sustainability Scorecard
During the schematic design phase of the project, it was determined one of the major goals of the project would be to utilize the Leadership in Energy and Environmental Design (LEED) Green Building Rating System in the development of the design and obtain a certification level rating if feasible. This is a national certification established by the US Green Building Council. An initial review of the conceptual design of the library indicated a basic certification level of a silver certification level could be obtained. A copy of the LEED preliminary review is included for reference and will be utilized as the design continues if LEED certification is desired.

NLRT Workshops and Community Meetings
Included are some of the graphics presented to the NLRT as well as the community.

project schedule



code review

This preliminary code review addresses key areas of concern and is not an exhaustive analysis. *Items in italics are editorial responses to the code reference quoted.*

The project is 47,500 gsf of all new construction, and includes a two-story library and one-story community meeting room sharing an entrance lobby, in the City of Tigard, Oregon.

CHAPTER I - ADMINISTRATION

Applicable	Code:State of Oregon 1998 Edition
	Structural Specialty Code
Jurisdictions:	City of Tigard
	State of Oregon
Description of use:	Public Library
Application:	Obtain from City of Tigard
Special Inspections:	See Chapter 17

CHAPTER 3 - USE OR OCCUPANCY

302 Mixed Use or Occupancy

When a building is used for more than one occupancy purpose, each part of the building comprising a distinct "occupancy", as described in Section 301, shall be separated from any other occupancy as specified in Section 302.4.

Group A2.1 occupancies require a 1-hr occupancy separation from Group B occupancies per Table 3-B.

303 Group Occupancies

A: Shall include buildings, structures, or portions thereof, for the gathering together of 50 or more persons for purposes such as civic, social or religious functions, recreation, education or instruction, food or drink consumption, or awaiting transportation.

A2.1: A building or a portion of a building having an assembly room with an occupant load of 300 or more without a legitimate stage, including such buildings used for educational purposes and not classed as Group B or E Occupancies.

The Community Meeting room is classified as an A2.1

304 Group B Occupancies

B – Office: Shall include buildings, structures, or portions thereof, for office, professional or service-type transactions, which are not classified as Group H occupancies. Such occupancies include occupancies for the storage of records and accounts, eating and drinking establishments with an occupant load of less than 50. Business occupancies shall include, but not be limited to: 10. Educational occupancies above the 12th grade.

The library is classified as a B Occupancy, as it includes offices, workrooms, group study rooms, small reading areas and stack areas.

CHAPTER 5 - GENERAL BUILDING LIMITATIONS

503 Location on Property

503.2Fire Resistance of Walls

Exterior walls shall have fire resistance and opening protection as set forth in Table 5-A.

The building has great than 20-foot wide yards on all sides.

504 Allowable Floor Areas

504.2 Areas of Buildings over One Story. The total combined floor area for multistory buildings may be twice that permitted by Table 5-B for one-story buildings, and the floor area of any single story shall not exceed that permitted for a one-story building.

Allowable Floor Area of Mixed Occupancies. When a building houses more than one occupancy, the area of the building shall be such that the sum of the ratios of the actual area for each separate occupancy divided by the total allowable area for each separate occupancy shall not exceed one.

Allowable Area Increases

Separation on all sides. Where public ways or yards more than 20 feet in width extend on all sides of the building and adjoin the entire perimeter, floor areas may be increased at a rate of 5 percent for each foot by which the minimum width exceeds 20 feet, but the increase shall not exceed 100 percent.

Table 5-A Exterior wall and opening protection based on location

Occ. Group	Construction Type	Exterior Bearing	Exterior Nonbearing	Openings
A2.1	V- 1 hour	2 hour less than 10 feet One-hour elsewhere	Same as bearing	Not permitted less than 5 feet Protected less than 10 feet
B	V-N	2 hour N/C beyond 20 ft	NR, N/C beyond 20 ft	Not Protected beyond 20 ft

Table 5-B Basic allowable building heights and floor area, and area increases

Occ.	Constr. Type	Stories Allowed	Allowable Area (gsf)	With Multi-Floor Increase	With Increase for Separation	With Increase for Sprinklers	Total Allowable Area
A2.1	V-1 hour	2	10,500	-	x 2 = 21,000	-	21,000
B	V-N	2	8,000	x 2 = 16,000	x 2 = 32,000	x 2 = 64,000	64,000
						Totals	**85,000**

CHAPTER 6 - TYPES OF CONSTRUCTION

The construction type is determined to be Type VN for the Library, and Type V-1 hour for the Community Meeting room. New construction shall be steel frame and concrete and metal decking for the library, which will fully sprinkled. The Community Meeting room shall use fire sprinklers in lieu of the 1-hour rating.

Table 6-A Fire-Resistive Requirements (in hours)

	VN	V-1 hour
Exterior bearing walls:	N	1
Interior bearing walls:	N	1
Exterior nonbearing walls:	N	1
Structural frame:	N	1
Permanent partitions:	N	1
Shafts enclosures:	1	1
Floors and floor/ceilings:	N	1
Roofs and roof/ceilings:	N	1
Exterior doors and windows:	(Sec. 606.3)	(Sec. 606.3)
Stairway construction:	(Sec. 606.4)	(Sec. 606.4)

CHAPTER 8 - INTERIOR FINISHES

- Maximum flame spread classification per Table 8A for class I, II and III.
- Enclosed vertical exit ways: Class I per Table 8B.
- Other exit ways: Class II per Table 8B.
- Rooms or areas: Class III per Table 8B, in the Library; Class II in the Community Meeting room.
- Smoke density: 450 maximum per 802.2.
- Sanitation (807): Floors and walls in water closet compartments per 807.

CHAPTER 10 – MEANS OF EGRESS

Table 10-A—Minimum Egress Requirements

Use	Minimum of two means of egress are required where #of occupants is at least	Occupant Load Factor (sf/occ.)
3. Assembly area, more-concentrated use		
Auditoriums	50	7
4. Assembly area, less-concentrated use		
Conference Rooms	50	15
7. Classroom	50	20
17. Library		
Reading Room	50	50
Library Stacks	30	100
21. Mechanical Equipment room	30	300
23. Offices	30	100
26. Storage	30	300

1007 Means of Egress requirements based on occupancy

Library First Floor	Use	SF/Occ	ASF	# of occupants
Coffee Bar	B	100	270	3
Circulation Desk	B	100	932	10
Children's Stacks	B	100	3,259	33
Children's Reading	B	50	1,411	29
Children's Program Room	B	50	514	11
Youth Services Work Area	B	100	550	6
New Books & AV Stacks	B	100	1,427	15
New Books & AV Reading	B	50	658	14
Volunteer Coordinator Office	B	100	158	2
Circulation Workroom	B	100	2,069	21
Mail/Loading	B	100	239	3
Technical Services	**B**	100	1,135	12
Staff Room	**B**	15	438	30
Total			**12,790**	**189**
Exit width for doors (186 x 0.2): 38" required / 252" provided				

Community Meeting Room (First Floor)	Use	SF/Occ	ASF	# of occupants
Community Meeting Room	A2.1	7	2,964	424
AV Control Room	B	100	90	1
Pantry	B	100	262	3
Total			**3,316**	**428**
Exit width for doors (428 x 0.2): 85.6" required / 216" provided				

Library Second Floor	Use	SF/Occ	ASF	# of occupants
Reference Desk, OPACS	B	100	623	7
Non-Fiction Stacks	B	100	2,867	29
Non-Fiction Reading	B	50	1,345	27
Electronic Info area 1	B	50	768	16
Electronic Info area 2	B	50	828	17
Fiction Stacks	B	100	1,983	20
Houghton Reading Room	B	50	1,870	38
Quiet Study Room 1	B	20	204	11
Oregon History Room	B	50	440	9
Young Adults Stacks	B	100	587	6
Young Adults Reading	B	50	547	11
Quiet Study Room 2	B	20	301	15
Training Room	B	20	625	32
Conference Room	B	15	411	28
Reference Workroom	B	100	1,042	11
Administration	B	100	745	8
Total			**15,186**	**285**
Exit width for doors (285 x 0.2): 57" required / 252" provided				
Exit width for stairs (285 x 0.3): 86" required / 114" provided				

BUILDING TOTALS:	**31,562**	**902**

sustainability LEED checklist

CHAPTER 29 - PLUMBING SYSTEMS

Total A2.1 occupancy areas: 2,964 asf Total B occupancy areas: 28,598 asf

- Group A = 2,964 ÷ 15 = 198 ÷ 2 = 99 = 2 male/ 4 female = 6 water closets
  = 1 male/1 female = 2 lavatories
- Group B = 28,598 ÷ 200 = 143 ÷ 2 = 72 = 4 male/4 female = 8 water closets
  Lavatories = 2 male/2 female = 4

Total required water closets: 14 (7 male/8 female) Total required lavatories: 6 (3 male/3 female)

Total Fixtures Provided in New Construction

	Male		Female		Unisex		Totals	
	wc	lav	wc	lav	wc	lav	wc	lav
1st Floor Library	3	2	6	4	3	2	12	8
2nd Floor Library	3	2	6	4	1	1	10	7
Community Meeting	2	2	4	2	-	-	6	4
Total wcs	**8**	**-**	**16**	**-**	**4**	**-**	**28**	**-**
Total lavs	**-**	**6**	**-**	**10**	**-**	**3**	**-**	**19**

LEED Action Plan

As part of the Sustainability LEED Action Plan for the New Tigard Library, the SRG team will be considering and addressing the following elements for continued integration and refinement in the design.

Site and Landscape

- Create a sediment and erosion control plan which conforms to EPA's Stormwater Management for Construction Activities, EPA Document NO EPA-832-R-92-005, or use the local code standards, whichever is more stringent. (SS Prerequisite)
- Respond to the site being located within 100 feet of any wetland, and close to 5 feet below the 100-year flood plain per FEMA (SS-Site Selection SSc1)
- Design a stormwater management plan for no net increase in the rate and quantity of stormwater runoff for existing developed conditions (SS-Stormwater Management SSc6.1)
- Design a stormwater management treatment plan that removes 80% of the average annual post development total suspended solids (TSS) and 40% of the average annual post development total phosphorous (TP) per EPA's document 840-B-92-002 1/93 (SS-Stormwater Management SSc6.2)
- Design an irrigation system using high efficiency irrigation technology to reduce water consumption for irrigation by 50%. (WE-Water Efficient Landscaping WEc1.1)
- Design bicycle-securing apparatus and changing/shower facilities to accommodate 5% or more of the building occupants (SS-Alternative Transportation SSc4.2)
- Restore a minimum of 50% of the remaining open area by planting native or adapted vegetation (SS-Reduced Site Disturbance SSc5.1)
- Do not exceed IESNA foot-candle level requirements as stated in Lighting for Exterior Environments practice(s) manual. (SS-Light Pollution Reduction SSc8)
- Or, design the site where the vegetation does not need potable water for irrigation by not installing permanent landscape irrigation systems. (WE – Water Efficient Landscaping WEc1.2)

Mechanical and Plumbing

- Design a water-efficient system that employs strategies that in aggregate use 20% less water than a baseline building after meeting Energy Policy Act of 1992 fixture performance requirements. (WE-Water Use Reduction WEc3.1)
- Reduce the use of municipally provided potable water for building sewage conveyance by a minimum of 50%. (WE-Innovative Wastewater Technologies WEc2)
- Design the energy efficiency performance of the building to meet ASHRAE/IESNA 90.1-1999 or the local energy code, whichever is more stringent. (EA-Minimum Energy Performance EAp2)
- Design the new HVAC&R systems to have zero use of CFC-based refrigerants.
- Reduce design energy cost by 20% as compared to the energy cost budget for regulated energy components described in the requirements of ASHRAE/IESNA Standard 90.1-1999. (EA-Optimize Energy Performance EAc1.1)
- Install base building level HVAC and refrigeration equipment and fire suppression systems that do not contain HCFC's or Halon. (EA-Ozone Depletion Eac4)
- Meet the minimum requirements of voluntary consensus standard ASHRAE 62-1999, Ventilation for Acceptable Indoor Air Quality. (EQ-Minimum IAQ Performance EQp1)

- Consideration of a permanent CO2 monitoring system that provides feedback on space ventilation performance in a form that affords operational adjustments. Set point parameters that maintain indoor carbon dioxide levels no higher than outdoor levels by more than 530 parts per million at any time. (EQ-Carbon Dioxide Monitoring EQc1)

- Provide controls for airflow and temperature for 50% of the non-perimeter, regularly occupied areas. (EQ-Controllability of Systems EQc6.2)

- Comply with ASHRAE 55-1992 for thermal comfort standards including humidity control within established ranges per climate zones. (EQ-Thermal Comfort EQc7.1)

Electrical

- Do not exceed IESNA foot-candle level requirements as stated in Lighting for Exterior Environments practice manual. (SS-Light Pollution Reduction SSc8)

- Design the energy efficiency performance of the building to meet ASHRAE/IESNA 90.1-1999 or the local energy code, whichever is more stringent. (EA-Minimum Energy Performance EAp2)

- Reduce design energy cost by 20% as compared to the energy cost budget for regulated energy components described in the requirements of ASHRAE/IESNA Standard 90.1-1999. (EA-Optimize Energy Performance EAc1.1)

Commissioning

- Develop and utilize a commissioning plan and verify that commissioning requirements are included in the construction documents. Complete a commissioning report that confirms the commissioning plan has been successfully executed and the design intent was achieved. (EA-Fundamental Building System Commissioning EAp1)

- Design the energy efficiency performance of the building to meet ASHRAE/IESNA 90.1-1999 or the local energy code, whichever is more stringent. (EA-Minimum Energy Performance EAp2)

- (Optional) In addition to the Fundamental Building Commissioning prerequisite, implement the additional commissioning tasks under this credit. (EA-Additional Commissioning EAc3)

Contractor

- Create a sediment and erosion control plan which conforms to EPA's Stormwater Management for Construction Activities, EPA Document NO EPA-832-R-92-005, or use the local code standards, whichever is more stringent (SS Prerequisite)

- Develop and implement a waste management plan, quantifying material diversion by weight. (Remember that salvage may include the donation of materials to charitable organizations.) Recycle and/or salvage at least 50% (by weight) of construction, demolition, and land clearing waste. (MR-Construction Waste Management MRc2.1)

- Develop and implement an Indoor Air Quality (IAQ) Management Plan for the construction phase. Meet or exceed the minimum requirements of SMACNA IAQ Guideline for Occupied Buildings under Construction, 1992. (EQ-Construction IAQ Management Plan EQc3.1)

- Develop and implement an Indoor Air Quality (IAQ) Management Plan for the pre-occupancy phase. Conduct a minimum two-week building flushout with new filtration media at 100% outside air. (EQ-Construction IAQ Management Plan EQc3.2)

Owner

- Designate open space area adjacent to the building that is equal to the building footprint. Provide a letter from owner that the open space will be conserved for the life of the building. (SS-Reduced Site Disturbance SSc5.2)

- Facilitate an easily accessible area that serves the entire building and is dedicated to the separation, collection and storage of materials for recycling. (MR-Storage & Collection of Recyclables MRp1)

- Owner to provide a letter verifying the building policy prohibits smoking. (EQ-Environmental Tobacco Smoke Control EQp2)

- The New Tigard Library could be a demonstration and education center for site and building sustainability elements incorporated into the design. Regular tours and classes could be developed.

LEED scorecard

LEED Categories						
Summary	**Required**	**Certain**	**Possible**	**Unlikely**	**Points**	**Notes**
Sustainable Sites	1				R	
Credits SS 1 thru SS 8		4	7	3	**14**	
Water Efficiency					R	
Credits WE 1 thru WE 3		1	2	2	**5**	
Energy & Atmosphere	3				R	
Credits EA 1 thru EA 6		2	4	11	**17**	
Materials & Resources	1				R	
Credits MR 1 thru MR 6		2	7	4	**13**	
Environmental Quality	2				R	
Credits EQ 1 thru EQ 8		8	6	1	**15**	
Innovation in Design					R	
Credits ID 1 thru ID 2		3	2	0	**5**	
	Total Pts Avail.				**69**	
Total Points by Category						
		20	**28**	**21**	**69**	

LEED ratings:
Certified 26-32 points
Silver 33-38 points
Gold 39-51 points
Platinium 52-69 points

PROJECT NAME: **NEW TIGARD LIBRARY** PROJECT NO.: **2216**

Water Efficiency	**Required**	**Certain**	**Possible**	**Unlikely**	**Points**	Client	Architect	Landscape	Civil	MEP	Com. Agent	Contractor	**Phase**	DATE: **11/11/02**
Credit 1: Water Efficient Landscaping														
- 1.1: 50% Reduction			6		1	/	/	/	/				SD/DD/CD	Install high efficiency irrigation equipment or capture rain water for 50% reduct.
- 1.2: Potable Free System/No Irrigation				6	1	/	/	/					DD/CD	Capture rain or recycled site water for 100% reduction from potable water.
Credit 2: Innovative Wastewater Technologies				6	1								SD/DD/CD	
Credit 3: Water Use Reduction														
- 3.1: 20% Reduction		6			1	/	/			/			DD/CD	Install water efficient fixtures for a total 20% water use reduction
- 3.2: 30% Reduction			6		1								DD/CD	Install water efficient fixtures for a total 30% water use reduction
	Total Pts Avail.				**5**									
Sub-Total Points by Category														
		1	**2**	**2**	**5**									

LEED Categories														
Sustainable Sites	**Required**	**Certain**	**Possible**	**Unlikely**	**Points**	Client	Architect	Landscape	Civil	MEP	Com. Agent	Contractor	**Phase**	**Notes**
Prerequisite 1: Erosion & Sedimentation Control	6				R		/		/			/	CD/CA	Erosion Control Plan to conform to EPA doc. 832-R-92
Credit 1: Site Selection				6	1	/	/						SD	Determine 100 yr. flood plain and location of wetlands
Credit 2: Urban Redevelopment				6	1	/	/	/					SD	Verify building sq. ft. and overall site acreage to determine develop. density
Credit 3: Brownfield Redevelopment				6	1								SD	
Credit 4: Alternative Transportation														
- 4.1: Public Transporation Access		6			1		/						SD/DD	Determine bldg. Location in relation to 2 or more bus lines
- 4.2: Bicycle Storage & Changing Rooms			6		1	/	/	/	/				SD/DD	Provide secure bicycle storage, shower and changing areas for 5% of occup.
- 4.3: Alternative Fuel Refueling Stations			6		1	/	/						SD/DD/CD	Provide fueling station(s) for 3% of regular-time occupants.
- 4.4: Parking Reductions		6			1	/							SD	Parking not to exceed local zoning req'mnts & parking for carpools/vanpools.
Credit 5: Reduced Site Disturbance														
- 5.1: Protect and Restore Open Space		6			1	/	/						SD/CD	Limit site disturbances to 40 ft. around bldg. and 25ft around parking areas.
- 5.2: Maximize Open Space			6		1	/	/						SD/CD	Reduce development footprint to exceed local zoning open space by 25%
Credit 6: Stormwater Management														
- 6.1: Flow Reduction		6			1		/		/				DD/CD	Do not increase the rate/quantity of stormwater run-off from existing site.
- 6.2: Flow Treatment			6		1		/	/	/				DD/CD	
Credit 7: Landscape & Exterior Design														
- 7.1: Non-Roof Surfaces			6		1		/	/	/				SD/DD/CD	Provide shading for 30% of non-roof impervious areas within 5 years
- 7.2: Roof Surfaces			6		1		/	/					DD/CD/CA	Design roof to have either an Energy Star compliant or 'Green' roof.
Credit 8: Light Pollution Reduction		6			1		/						DD/CD/CA	Lighting design to eliminate light propogation from site
	Total Pts Avail.				**14**									
Sub-Total Points by Category														
		4	**7**	**3**	**14**									

PROJECT NAME: **NEW TIGARD LIBRARY** PROJECT NO.: **2216**

Energy & Atmosphere	**Required**	**Certain**	**Possible**	**Unlikely**	**Points**	Client	Architect	Landscape	Civil	MEP	Com. Agent	Contractor	**Phase**	DATE: **11/11/02**
Prerequisite 1: Fundamental Building System Comm.	6				R	/	/				/		SD/CD/CA	
Prerequisite 2: Minimum Energy Performance	6				R		/			/	/		SD/DD	Energy performance in accordance with ASHRAE 90.1-1999.
Prerequisite 3: CFC Reduction in HVAC&R Equip.	6				R		/			/			SD/DD	Design/specify HVAC system to be CFC free.
Credit 1: Optimize Energy Performance														
- 1.1: 20% New / 10% Existing		6			2		/			/			SD/DD/CD	Energy performance to exceed ASHRAE 90.1-1999 or local Energy Code
- 1.2: 30% New / 20% Existing			6		2		/			/			SD/DD/CD	
- 1.3: 40% New / 30% Existing				6	2								SD/DD/CD	
- 1.4: 50% New/ 40% Existing				6	2								SD/DD/CD	
- 1.5: 60% New/ 50% Existing				6	2								SD/DD/CD	
Credit 2: Renewable Energy														
- 2.1: 5%				6	1	/	/			/			SD/CD	
- 2.2: 10%				6	1								SD/CD	
- 2.3: 20%				6	1								SD/CD	
Credit 3: Additional Commissioning				6	1	/	/				/		DD/CD	Develop a comprehensive commission plan and re-verification
Credit 4: Ozone Depletion			6		1		/			/			DD/CD	HVAC equipment to be HCFC free
Credit 5: Measurement & Verification			6		1								CD/CA	Agreement for long-term monitoring of systems per US DOE protocol
Credit 6: Green Power				6	1	/	/						CD/CA	Owner to establish a two year contract for power generated from renewable.
	Total Pts Avail.				**17**									
Sub-Total Points by Category														
		2	**4**	**11**	**17**									

PROJECT NAME: **NEW TIGARD LIBRARY** — PROJECT NO.: **2216**

Materials & Resources	Required	Certain	Possible	Unlikely	Points	Client	Architect	Landscape	Civil	MEP	Com. Agent	Contractor	Phase	DATE: 11/11/02
Prerequisite 1: Storage & Collection of Recyclables	6				R	/	/					/	SD/DD	
Credit 1: Building Reuse														
- 1.1: Maintain 75% of Existing Shell				6	1								SD	
- 1.2: Maintain 100% of Shell				6	1								SD	
- 1.3: Maintain 100% Shell/ 50% non Shell				6	1								SD	
Credit 2: Construction Waste Management														
- 2.1: Salvage/Recycle 50%		6			1	/	/					/	SD/DD	Recycle and/or salvage 50% of construction, demolition and site clearing waste.
- 2.2: Salvage/Recycle 75%			6		1								SD/DD	Recycle and/or salvage 75% of construction, demolition and site clearing waste.
Credit 3: Resource Reuse														
- 3.1: Specify 5%			6		1								SD/DD/CD/CA	
- 3.2: Specify 10%				6	1								SD/DD/CD/CA	
Credit 4: Recycled Content														
- 4.1: Specify 25%		6			1		/					/	DD/CD/CA	Specify 25% of bldg. materials to contain recycled content.
- 4.2: Specify 50%			6		1								DD/CD/CA	Specify 50% of bldg. materials to contain recycled content.
Credit 5: Local/Regional Materials														
- 5.1: 20% Manufactured Locally			6		1		/					/	DD/CD/CA	Specify 20% of bldg. Materials to be manufactured within 500 mile radius
- 5.2: 20% Mfg./ 50% Harvested Locally			6		1								DD/CD/CA	Specify 50% of local manufactured materials to be harvested w/in 500 miles.
Credit 6: Rapidly Renewable Materials			6		1								DD/CD/CA	Specify rapidly renewable materials for 5% of total building materials
Credit 7: Certified Wood			6		1								DD/CD/CA	Specify 50% of wood-based materials to be certified by FSC.
Total Pts Avail.					13									
Sub-Total Points by Category														
		2	**7**	**4**	**13**									

PROJECT NAME: **NEW TIGARD LIBRARY** — PROJECT NO.: **2216**

Innovation in Design	Required	Certain	Possible	Unlikely	Points	Client	Architect	Landscape	Civil	MEP	Com. Agent	Contractor	Phase	DATE: 11/11/02
Credit 1: Innovation in Design														
- 1.1: Innovation in Design		6			1		/						SD/DD/CD	Develop a education program RE: the sustainable strategies of the building
- 1.2: Innovation in Design		6			1		/						SD/DD/CD	Develop a education program RE: the plants, birds of the site
- 1.3: Innovation in Design			6		1		/						SD/DD/CD	
- 1.4: Innovation in Design			6		1		/						SD/DD/CD	
Credit 2: LEED Accredited Professional		6			1		/						SD/DD/CD/CA	LEED professional on staff
Total Pts Avail					5									
Sub-Total Points by Category														
		3	**2**	**0**	**5**									

Total Points by Category				69	
	20	**28**	**21**	**69**	

LEED ratings:
Certified 26-32 points
Silver 33-38 points
Gold 39-51 points
Platinium 52-69 points

PROJECT NAME: **NEW TIGARD LIBRARY** — PROJECT NO.: **2216**

Environmental Quality	Required	Certain	Possible	Unlikely	Points	Client	Architect	Landscape	Civil	MEP	Com. Agent	Contractor	Phase	DATE: 11/11/02
Prerequisite 1: Minimum IAQ Performance	6				R		/			/			CD/CA	
Prerequisite 2: Environmental Tobacco Smoke Cntrl.	6				R	/	/			/			DD/CD	
Credit 1: Carbon Dioxide Monitoring			6		1		/			/			DD/CD	Install carbon dioxide monitoring sensors and equipment
Credit 2: Increase Ventilation Effectiveness			6		1		/			/			SD/DD	Design mechanical system to conform to ASHRAE 129-1997.
Credit 3: Construction IAQ Management Plan														
- 3.1: During Construction		6			1		/					/	CD/CA	Contractor to protect air distribution system from construction debris.
- 3.2: After Construction		6			1		/					/	CA	Contractor to flush out bldg prior to occupancy per IAQ management plan.
Credit 4: Low Emitting Materials														
- 4.1: Adhesives and Sealants		6			1		/						DD/CD	Specify materials with low VOC per requirement
- 4.2: Paints		6			1		/						DD/CD	Specify materials with low VOC per requirement
- 4.3: Carpet		6			1		/						DD/CD	Specify materials with low VOC per requirement
- 4.4: Composite Wood			6		1		/						DD/CD	Composite wood to have no added urea-formaldehyde resins.
Credit 5: Indoor Chemical and Pollutant Control		6			1		/			/			SD/CD	Reduce indoor pollutants by incorporation permanent walk-off mats.
Credit 6: Controllability of Systems														
- 6.1: Operable Windows			6		1	/	/			/			DD/CD	
- 6.2: Individual Controls			6		1		/			/			DD/CD	
Credit 7: Thermal Comfort														
- 7.1: Compliance with ASHRAE 55-1992		6			1					/			CD/CA	Engineer to provide letter stating conformance with ASHRAE 55-1992.
- 7.2: Permanent Monitoring System				6	1		/			/			DD/CD/CA	
Credit 8: Daylight and Views														
- 8.1: Distribution Quality			6		1		/						DD/CD/CA	Design bldg. to provide 75% of occupied areas with 2% daylight factor
- 8.2: Access to Views		6			1		/						DD/CD/CA	Provide 90% of occupants with direct views to the outdoors
Total Pts Avail.					15									
Sub-Total Points by Category														
		8	**6**	**1**	**15**									